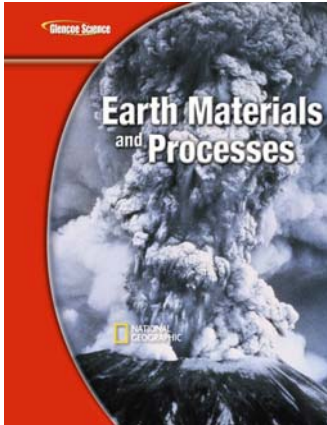
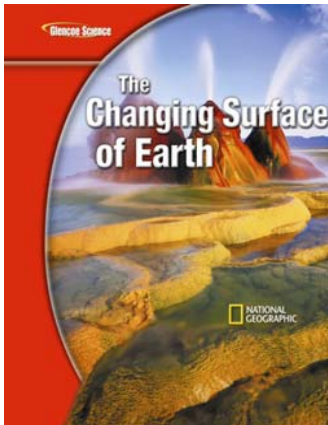


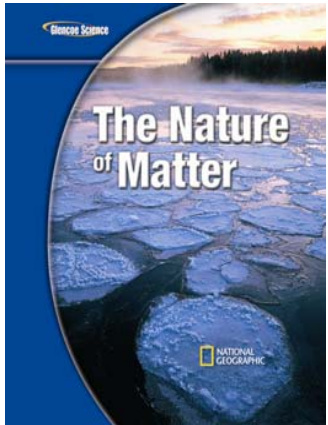
Ecology E
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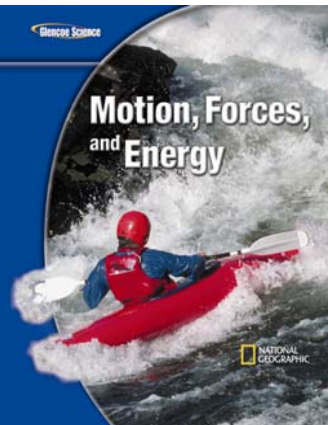
Earth Materials and Processes F
© 2008



The Changing Surface of Earth G
© 2008



The Nature of Matter K
© 2008



Motion, Forces, and Energy M
© 2008

STANDARDS	PAGE REFERENCES		
	Life Science (E)	Earth Science (F, G)	Physical Science (K, M)
Grade 6			
SCIENCE PROCESSES			
<i>K-7 Standard S.IP: Develop an understanding that scientific inquiry and reasoning involves observing, questioning, investigating, recording, and developing solutions to problems.</i>			
S.IP.M.1 Inquiry involves generating questions, conducting investigations, and developing solutions to problems through reasoning and observation.			
S.IP.06.11 Generate scientific questions based on observations, investigations, and research.	Student Edition: (E) <i>Applying Science</i> 15	Student Edition: (F) <i>Use the Internet Lab</i> 116-117 (G) 59 #21 <i>Science and History</i> 28 Teacher Wraparound Edition: (F) A 82, 169; CFU 81; DI 26; IL 163 (G) AI 154A; AIL 83; IL 107; R 53; SJ 172	Student Edition: (K) <i>Design Your Own Lab</i> 62-63, 88-89 <i>Lab</i> 77, 117, 118-119 <i>Mini Lab</i> 57, 81, 99 (M) <i>Design Your Own Lab</i> 26-27, 56-57, 116-117 <i>Lab</i> 25, 88-89, 148-149 Teacher Wraparound Edition: (K) AIL 118; As 57, 77; IL 82 (M) AIL 26, As 89; CYD 57

STANDARDS	PAGE REFERENCES		
	Life Science (E)	Earth Science (F, G)	Physical Science (K, M)
S.IP.06.12 Design and conduct scientific investigations.	Student Edition: (E) <i>Design Your Own Lab</i> 26-27	Student Edition: (F) <i>Lab</i> 13, 26-27, 56-57, 82 <i>Design Your Own Lab</i> 176-177 (G) 87 #28 <i>Design Your Own Lab</i> 54-55, 82-83 Teacher Wraparound Edition: (G) A 75, 83	Student Edition: (K) <i>Design Your Own Lab</i> 62-63, 88-89 (M) <i>Design Your Own Lab</i> 26-27, 56-57, 116-117, 174-175 Teacher Wraparound Edition: (K) AIL 89 (M) AIL 116
S.IP.06.13 Use tools and equipment (spring scales, stop watches, meter sticks and tapes, models, hand lens, thermometer, models, sieves, microscopes) appropriate to scientific investigations.	Student Edition: (E) <i>Design Your Own Lab</i> 26-27 <i>Lab</i> 111 <i>Use the Internet Lab</i> 84-85	Student Edition: (F) <i>Lab</i> 13, 26-27, 56-57, 82 <i>Design Your Own Lab</i> 176-177 (G) <i>Design Your Own Lab</i> 54-55, 82-83 <i>Lab</i> 75, 113, 114-115	Student Edition: (K) <i>Lab</i> 53, 77 <i>Launch Lab</i> 39 (M) <i>Design Your Own Lab</i> 56-57, 116-117, 174-175 <i>Lab</i> 55, 81, 103, 168 <i>Mini Lab</i> 53, 143 Teacher Wraparound Edition: (M) AIL 116; As 53, 55
S.IP.06.14 Use metric measurement devices in an investigation.	Student Edition: (E) <i>Lab</i> 54-55, 76	Student Edition: (F) <i>Lab</i> 13, 82, 105 <i>Launch Lab</i> 155 (G) <i>Design Your Own Lab</i> 54-55, 82-83 <i>Lab</i> 75, 114-115	Student Edition: (K) <i>Lab</i> 53, 77 (M) <i>Design Your Own Lab</i> 56-57, 116-117, 174-175 <i>Lab</i> 55, 81, 103, 168

STANDARDS	PAGE REFERENCES		
	Life Science (E)	Earth Science (F, G)	Physical Science (K, M)
S.IP.06.15 Construct charts and graphs from data and observations.	Student Edition: (E) <i>Applying Math</i> 40 <i>Design Your Own Lab</i> 26-27	Student Edition: (F) <i>Lab</i> 26-27, 56-57, 82 <i>Applying Skills</i> 43 <i>Use the Internet Lab</i> 116-117 (G) <i>Design Your Own Lab</i> 54-55, 82-83 <i>Lab</i> 75, 114-115 <i>Use the Internet Lab</i> 176-177 <i>Use the Internet Lab</i> 116-117	Student Edition: (K) <i>Communicating Your Data</i> 77 <i>Lab</i> 53 <i>Mini Lab</i> 99 (M) <i>Communicating Your Data</i> 25 <i>Design Your Own Lab</i> 174-175 <i>Lab</i> 168 <i>Mini Lab</i> 143 Teacher Wraparound Edition: (K) <i>CYD</i> 77 (M) <i>As</i> 143; <i>CYD</i> 25, 175
S.IP.06.16 Identify patterns in data.	Student Edition: (E) <i>Applying Math</i> 40 <i>Design Your Own Lab</i> 26-27	Student Edition: (F) <i>Lab</i> 26-27, 82, 138 <i>Use the Internet Lab</i> 116-117 (G) <i>Lab</i> 75, 114-115, 138, 169 <i>Design Your Own Lab</i> 82-83	Student Edition: (K) <i>Lab</i> 30-31, 53, 77, 117 <i>Launch Lab</i> 97 <i>Mini Lab</i> 99 (M) <i>Design Your Own Lab</i> 174-175 Teacher Wraparound Edition: (K) <i>As</i> 31, 99; <i>CYD</i> 53

STANDARDS	PAGE REFERENCES		
	Life Science (E)	Earth Science (F, G)	Physical Science (K, M)
Inquiry Analysis and Communication			
<i>K-7 Standard S.IA: Develop an understanding that scientific inquiry and investigations require analysis and communication of findings, using appropriate technology.</i>			
S.IA.M.1 Inquiry includes an analysis and presentation of findings that lead to future questions, research, and investigations.			
S.IA.06.11 Analyze information from data tables and graphs to answer scientific questions.	Student Edition: (E) <i>Applying Math</i> 40, 129 <i>Design Your Own Lab</i> 26-27 Teacher Wraparound Edition: (E) <i>CYD</i> 27	Student Edition: (F) <i>Lab</i> 26-27, 56-57, 82 <i>Applying Skills</i> 43 <i>Use the Internet Lab</i> 116-117 (G) <i>Design Your Own Lab</i> 54-55, 82-83 <i>Lab</i> 75, 114-115 <i>Use the Internet Lab</i> 176-177	Student Edition: (K) <i>Communicating Your Data</i> 53, 63 <i>Design Your Own Lab</i> 62-63 <i>Lab</i> 30-31, 53, 117 (M) <i>Communicating Your Data</i> 175 <i>Design Your Own Lab</i> 174-175 <i>Lab</i> 168 <i>Launch Lab</i> 35 <i>Mini Lab</i> 143 Teacher Wraparound Edition: (K) <i>As</i> 31; <i>CYD</i> 53, 63 (M) <i>As</i> 168; <i>CYD</i> 175

STANDARDS	PAGE REFERENCES		
	Life Science (E)	Earth Science (F, G)	Physical Science (K, M)
S.IA.06.12 Evaluate data, claims, and personal knowledge through collaborative science discourse.	Teacher Wraparound Edition: (E) EA 27	Student Edition: (F) 98-101 <i>Model and Invent Lab</i> 88-89 <i>Use the Internet Lab</i> 116-117 (G) <i>Design Your Own Lab</i> 54-55 <i>Science Online</i> 171 <i>Use the Internet Lab</i> 176-177 Teacher Wraparound Edition: (F) DIS 15 (G) DIS 171	Student Edition: (K) <i>Research</i> 32 (M) 5 Teacher Wraparound Edition: (K) R 32
S.IA.06.13 Communicate and defend findings of observations and investigations using evidence.	Student Edition: (E) <i>Science Online</i> 146 <i>Science and Society</i> 86, 146 Teacher Wraparound Edition: (E) D 86, 146; EA 115; II 86; P 146	Student Edition: (F) <i>Launch Lab</i> 7 <i>Lab</i> 26-27 <i>Model and Invent Lab</i> 88-89 <i>Use the Internet Lab</i> 116-117 (G) <i>Design Your Own Lab</i> 54-55, 82-83 <i>Lab</i> 114-115 <i>Applying Skills</i> 131 <i>Communicating Your Data</i> 145	Student Edition: (K) <i>Design Your Own Lab</i> 30-31, 88-89 <i>Lab</i> 24, 77, 117 (M) <i>Design Your Own Lab</i> 26-27, 56-57, 174-175 Teacher Wraparound Edition: (K) As 26, 31, 89

STANDARDS	PAGE REFERENCES		
	Life Science (E)	Earth Science (F, G)	Physical Science (K, M)
S.IA.06.14 Draw conclusions from sets of data from multiple trials of a scientific investigation.	Student Edition: (E) <i>Communicating Your Data</i> 27 <i>Design Your Own Lab</i> 26-27	Student Edition: (F) <i>Lab</i> 26-27 <i>Design Your Own Lab</i> 176-177	Student Edition: (K) <i>Communicating Your Data</i> 63, 89 (M) <i>Communicating Your Data</i> 168 <i>Lab</i> 25, 26-27, 168 Teacher Wraparound Edition: (K) CYD 63
S.IA.06.15 Use multiple sources of information to evaluate strengths and weaknesses of claims, arguments, or data.	See the Earth Science books to meet this standard.	Student Edition: (F) <i>Model and Invent Lab</i> 88-89 <i>Science Online</i> 99 <i>Use the Internet Lab</i> 116-117 (G) <i>You Do It</i> 5 <i>Science Online</i> 171 <i>Use the Internet Lab</i> 176-177 Teacher Wraparound Edition: (F) DI 100, 114 (G) DI 171; RE 163	Student Edition: (K) <i>Lab</i> 118-119 (M) <i>Lab</i> 148-149 Teacher Wraparound Edition: (M) AIL 148; As 149

STANDARDS	PAGE REFERENCES		
	Life Science (E)	Earth Science (F, G)	Physical Science (K, M)
Reflection and Social Implications			
<i>K-7 Standard S.RS: Develop an understanding that claims and evidence for their scientific merit should be analyzed. Understand how scientists decide what constitutes scientific knowledge. Develop an understanding of the importance of reflection on scientific knowledge and its application to new situations to better understand the role of science in society and technology.</i>			
S.RS.M.1 Reflecting on knowledge is the application of scientific knowledge to new and different situations. Reflecting on knowledge requires careful analysis of evidence that guides decision-making and the application of science throughout history and within society.			
S.RS.06.11 Evaluate the strengths and weaknesses of claims, arguments, and data.	Teacher Wraparound Edition: (E) EA 27	Student Edition: (F) 98-101 <i>Model and Invent Lab</i> 88-89 <i>Use the Internet Lab</i> 116-117 (G) <i>Design Your Own Lab</i> 54-55 <i>Science Online</i> 171 <i>Use the Internet Lab</i> 176-177 Teacher Wraparound Edition: (F) DIS 15 (G) DIS 171	Student Edition: (K) <i>Research</i> 32 (M) 5 Teacher Wraparound Edition: (K) R 32

STANDARDS	PAGE REFERENCES		
	Life Science (E)	Earth Science (F, G)	Physical Science (K, M)
S.RS.06.12 Describe limitations in personal and scientific knowledge.	See the Earth Science books to meet this standard..	Student Edition: (F) <i>Get Ready to Read</i> 8A, 36A (G) <i>The Nature of Science</i> 4-5 <i>Get Ready to Read</i> 8A Teacher Wraparound Edition: (G) IM 122F	Student Edition: (K) <i>Research</i> 32 (M) 5 Teacher Wraparound Edition: (K) R 32
S.RS.06.13 Identify the need for evidence in making scientific decisions.	See the Earth Science books to meet this standard.	Student Edition: (F) 14-18 <i>The Nature of Science</i> 2-5 <i>Applying Science</i> 16 <i>Lab</i> 26-27, 44, 56-57 (G) <i>The Nature of Science</i> 4-5 <i>Science Online</i> 133 <i>Lab</i> 138 <i>Applying Science</i> 142	Student Edition: (M) 3

STANDARDS	PAGE REFERENCES		
	Life Science (E)	Earth Science (F, G)	Physical Science (K, M)
S.RS.06.14 Evaluate scientific explanations based on current evidence and scientific principles.	Student Edition: (E) <i>Science and Society</i> 86, 146 Teacher Wraparound Edition: (E) D 86, 146	Student Edition: (F) 98-101, 102-104, 106-115 <i>Get Ready to Read</i> 98A-B (G) <i>Science Online</i> 171 Teacher Wraparound Edition: (F) DI 100, 103, 114; DIS 99; SJ 107 (G) DI 171; DIS 171; RE 163	Student Edition: (K) 4 <i>Lab</i> 118-119 (M) <i>Lab</i> 88-89, 148-149 Teacher Wraparound Edition: (M) AIL 148; As 89, 149

<p>S.RS.06.15 Demonstrate scientific concepts through various illustrations, performances, models, exhibits, and activities.</p>	<p>Student Edition: (E) <i>Communicating Your Data</i> 117</p> <p>Teacher Wraparound Edition: (E) <i>CYD</i> 117</p>	<p>Student Edition: (F) 31 #25 <i>Model and Invent Lab</i> 88-89 (G) <i>MiniLAB</i> 10 <i>Model and Invent Lab</i> 26-27, 144-145 <i>Lab</i> 114-115</p> <p>Teacher Wraparound Edition: (F) <i>A</i> 101; <i>MM</i> 78 (G) <i>IL</i> 136</p>	<p>Student Edition: (K) 129-131 <i>Design Your Own Lab</i> 62-63 <i>Lab</i> 24 <i>Launch Lab</i> 7 <i>Mini Lab</i> 15 (M) <i>Launch Lab</i> 7, 35, 97 <i>Mini Lab</i> 53, 68, 133</p> <p>Teacher Wraparound Edition: (K) <i>A</i> 58; <i>As</i> 15, 24; <i>LD</i> 21, 43, 74, 103; <i>MM</i> 73, 79; <i>QD</i> 11, 28, 44, 79 (M) <i>A</i> 38, 99, 111, 136; <i>IL</i> 163; <i>LD</i> 53, 71, 112, 132, 166; <i>MM</i> 21, 47, 142; <i>QD</i> 5, 38, 48, 71, 77, 114</p>
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STANDARDS	PAGE REFERENCES		
	Life Science (E)	Earth Science (F, G)	Physical Science (K, M)
S.RS.06.16 Design solutions to problems using technology.	<p>Student Edition: (E) <i>Model and Invent</i> 116-117</p> <p>Teacher Wraparound Edition: (E) A 4; E 5; IL 108</p>	<p>Student Edition: (F) <i>Model and Invent Lab</i> 88-89 <i>MiniLAB</i> 144 (G) 59 #22</p> <p>Teacher Wraparound Edition: (F) IL 47, 134; R 145</p>	<p>Student Edition: (K) 129-131 <i>Design Your Own Lab</i> 62-63 <i>Lab</i> 24 <i>Launch Lab</i> 7 <i>Mini Lab</i> 15 (M) <i>Launch Lab</i> 7, 35, 97 <i>Mini Lab</i> 53, 68, 133</p> <p>Teacher Wraparound Edition: (K) A 58; As 15, 24; LD 21, QD 11, 28, 44, 79 (M) A 38, 99, 111, 136; IL 163; LD 53, 71, 112, 132, 166; MM 21, 47, 142; QD 5, 38, 48, 71, 77, 114</p>

STANDARDS	PAGE REFERENCES		
	Life Science (E)	Earth Science (F, G)	Physical Science (K, M)
S.RS.06.17 Describe the effect humans and other organisms have on the balance of the natural world.	<p>Student Edition: (E) 64-67, 78-79, 102-110, 112-115, 130-136 <i>Applying Science</i> 114 <i>Lab</i> 111 <i>Mini Lab</i> 103, 133 <i>Model and Invent Lab</i> 116-117 <i>National Geographic</i> 66, 132 <i>Science Journal</i> 62</p> <p>Teacher Wraparound Edition: (E) A 107; AP 62; D 65; IL 108; QD 109; TBI 62; TPK 102; VSS 66</p>	<p>Student Edition: (F) 87 <i>Science and Society</i> 58 (G) 50-53 <i>The Nature of Science</i> 2-5 <i>Science Online</i> 51</p> <p>Teacher Wraparound Edition: (F) CD 68; V 72; VL 70 (G) SJ 105</p>	<p>Student Edition: (M) 140-141 <i>Integrate Life Science</i> 167</p> <p>Teacher Wraparound Edition: (K) AIL 118 (M) D 144</p>
S.RS.06.18 Describe what science and technology can and cannot reasonably contribute to society.	<p>Student Edition: (E) <i>Science and Society</i> 86</p> <p>Teacher Wraparound Edition: (E) D 86; II 86</p>	<p>Student Edition: (F) 75, 142-145 <i>The Nature of Science</i> 2-5 <i>Science and History</i> 28 (G) <i>The Nature of Science</i> 2-5</p> <p>Teacher Wraparound Edition: (G) CC 4; DIS 3</p>	See the Earth Science books to meet this standard.

STANDARDS	PAGE REFERENCES		
	Life Science (E)	Earth Science (F, G)	Physical Science (K, M)
S.RS.06.19 Describe how science and technology have advanced because of the contributions of many people throughout history and across cultures.	Student Edition: (E) <i>Integrate Career</i> 79 Teacher Wraparound Edition: (E) IC 79	Student Edition: (F) 39, 98-100 <i>Integrate Social Studies</i> 23 <i>Science and History</i> 28 (G) 143, 156-158 Teacher Wraparound Edition: (F) SJ 107	Student Edition: (K) 8-10, 12, 98-99 <i>Time Science and History</i> 32 (M) 2-3, 83 <i>Integrate History</i> 100 Teacher Wraparound Edition: (K) CD 10, 80, 107; D 32; SJ 14; TFYI 15, 20, 50 (M) CC 43, 67, 79, 136; CD 9, 52, 111, 142, 172; DI 76, 105; E5; IH 100; SJ 170; TFYI 38, 135

STANDARDS	PAGE REFERENCES		
	Life Science (E)	Earth Science (F, G)	Physical Science (K, M)
PHYSICAL SCIENCE			
Energy			
<i>K-7 Standard P.EN: Develop an understanding that there are many forms of energy (such as heat, light, sound, and electrical) and that energy is transferable by convection, conduction, or radiation. Understand energy can be in motion, called kinetic; or it can be stored, called potential. Develop an understanding that as temperature increases, more energy is added to a system. Understand nuclear reactions in the sun produce light and heat for the Earth.</i>			
P.EN.M.1 Kinetic and Potential Energy- Objects and substances in motion have kinetic energy. Objects and substances may have potential energy due to their relative positions in a system. Gravitational, elastic, and chemical energy are all forms of potential energy.			
P.EN.06.11 Identify kinetic or potential energy in everyday situations (for example: stretched rubber band, objects in motion, ball on a hill, food energy).	See the Physical Science books to meet this standard.	Student Edition: (G) <i>Integrate Physics</i> 67	Student Edition: (K) 46 <i>Figure 8</i> 46 (M) 127, 129, 131, 136-137 <i>Figure 2</i> 127 <i>Figure 14</i> 136 <i>Integrate Life Science</i> 133 Teacher Wraparound Edition: (K) D 49 (M) As 137; CC 127; IL 127, 163; SJ 129

STANDARDS	PAGE REFERENCES		
	Life Science (E)	Earth Science (F, G)	Physical Science (K, M)
P.EN.06.12 Demonstrate the transformation between potential and kinetic energy in simple mechanical systems (for example: roller coasters, pendulums).	See the Physical Science books to meet this standard.	See the Physical Science books to meet this standard.	Student Edition: (M) 131-132 <i>Chapter 5 Review</i> 153 # 20 <i>Figure 8</i> 131 <i>Figure 9</i> 132 <i>Figure 19</i> 142 <i>Science Online</i> 132 <i>Section 2 Review</i> 137 #1 Teacher Wraparound Edition: (M) LD 132
P.EN.M.4 Energy Transfer- Energy is transferred from a source to a receiver by radiation, conduction, and convection. When energy is transferred from a source to a receiver, the quantity of energy before the transfer is equal to the quantity of energy after the transfer.			
P.EN.06.41 Explain how different forms of energy can be transferred from one place to another by radiation, conduction, or convection.	See the Physical Science books to meet this standard.	Student Edition: (F) 111, 121 #22, 123 #20 <i>MiniLAB</i> 111 Teacher Wraparound Edition: (F) A 111; R 115	Student Edition: (M) 162-165 <i>Chapter 6 Review</i> 179 #20, #22, #26 <i>Figure 6</i> 163 <i>Figure 7</i> 164 <i>Mini Lab</i> 165 <i>Section 2 Review</i> 167 #4, #6 Teacher Wraparound Edition: (M) AR 164; As 165; D 164;

STANDARDS	PAGE REFERENCES		
	Life Science (E)	Earth Science (F, G)	Physical Science (K, M)
P.EN.06.42 Illustrate how energy can be transferred while no energy is lost or gained in the transfer.	Teacher Wraparound Edition: (E) TFYI 52	See the Physical Science books to meet this standard.	Student Edition: (M) 132, 169 Teacher Wraparound Edition: (M) IM 124F; SCB 124E
Changes in Matter			
<i>K-7 Standard P.CM: Develop an understanding of changes in the state of matter in terms of heating and cooling, and in terms of arrangement and relative motion of atoms and molecules. Understand the differences between physical and chemical changes. Develop an understanding of the conservation of mass. Develop an understanding of products and reactants in a chemical change.</i>			
P.CM.M.1 Changes in State- Matter changing from state to state can be explained by using models which show that matter is composed of tiny particles in motion. When changes of state occur, the atoms and/or molecules are not changed in structure. When the changes in state occur, mass is conserved because matter is not created or destroyed.			
P.CM.06.11 Describe and illustrate changes in state, in terms of the arrangement and relative motion of the atoms or molecules.	See the Physical Science books to meet this standard.	Student Edition: (F) 11 <i>Integrate Chemistry</i> 43	Student Edition: (K) 47-52 <i>National Geographic</i> 48 Teacher Wraparound Edition: (K) A 48; IM 47; NG 48; TPK 45; VL 50
P.CM.06.12 Explain how mass is conserved as it changes from state to state in a closed system.	See the Physical Science books to meet this standard.	Student Edition: (F) 39	Student Edition: (K) 87 <i>Figure</i> 19 87

STANDARDS	PAGE REFERENCES		
	Life Science (E)	Earth Science (F, G)	Physical Science (K, M)
Organization of Living Things			
<p><i>K-7 Standard L.OL: Develop an understanding that plants and animals (including humans) have basic requirements for maintaining life which include the need for air, water and a source of energy. Understand that all life forms can be classified as producers, consumers, or decomposers as they are all part of a global food chain where food/energy is supplied by plants which need light to produce food/energy. Develop an understanding that plants and animals can be classified by observable traits and physical characteristics. Understand that all living organisms are composed of cells and they exhibit cell growth and division. Understand that all plants and animals have a definite life cycle, body parts, and systems to perform specific life functions.</i></p>			
<p>L.OL.M.5 Producers, Consumers, and Decomposers- All animals, including humans, are consumers that meet their energy by eating other organisms or their products. Consumers break down the structures of the organisms they eat to make the materials they need to grow and function. Decomposers, including bacteria and fungi, use dead organisms or their products to meet their energy needs.</p>			
<p>L.OL.06.51 Classify organisms (producers, consumers, and decomposers) based on their source of energy for growth and development.</p>	<p>Student Edition: (E) 20-21, 51-52 Teacher Wraparound Edition: (E) DI 51; TPK 20</p>	<p>See the Physical Science books to meet this standard.</p>	<p>Student Edition: (M) 140 <i>Figure 17</i> 140 <i>Integrate Earth Science</i> 140 Teacher Wraparound Edition: (M) UA 140</p>
<p>L.OL.06.52 Distinguish between the ways in which consumers and decomposers obtain energy.</p>	<p>See the Physical Science books to meet this standard.</p>	<p>Teacher Wraparound Edition: (F) SJ 159</p>	<p>Student Edition: (M) 129 Teacher Wraparound Edition: (M) DI 129</p>

STANDARDS	PAGE REFERENCES		
	Life Science (E)	Earth Science (F, G)	Physical Science (K, M)
Ecosystems			
<i>K-7 Standard L.EC: Develop an understanding of the interdependence of the variety of populations, communities and ecosystems, including those in the Great Lakes region. Develop an understanding of different types of interdependence and that biotic (living) and abiotic (non-living) factors affect the balance of an ecosystem. Understand that all organisms cause changes, some detrimental and others beneficial, in the environment where they live.</i>			
L.EC.M.1 Interactions of Organisms- Organisms of one species form a population. Populations of different organisms interact and form communities. Living communities and nonliving factors that interact with them form ecosystems.			
L.EC.06.11 List examples of populations, communities, and ecosystems including the Great Lakes region.	Student Edition: (E) 9-10 <i>Applying Science</i> 15 <i>Science and History</i> 28 Teacher Wraparound Edition: (E) A 10, 28; CC 18; CD 9; CU 11, 19; DI 10, 15; IM 10; QD 9; R 11; TFYI 9; VL 10	See the Life Science books to meet this standard.	Student Edition: (M) 167

STANDARDS	PAGE REFERENCES		
	Life Science (E)	Earth Science (F, G)	Physical Science (K, M)
<p>L.EC.M.2 Relationships of Organisms- Two types of organisms may interact with one another in several ways: They may be in a producer/consumer, predator/ prey, or parasite/host relationship. Some organisms may scavenge or decompose another. Relationships may be competitive or mutually beneficial. Some species have become so adapted to each other that neither could survive without the other.</p>			
<p>L.EC.06.21 Describe common patterns of relationships between and among populations (competition, parasitism, symbiosis, predator/prey).</p>	<p>Student Edition: (E) 12-19 <i>Applying Science</i> 15 <i>National Geographic</i> 18 <i>Mini Lab</i> 13, 17</p> <p>Teacher Wraparound Edition: (E) A 15, 18; CU 19; D 14; DI 15, 16; IL 14; LD 14; QD 16; R 19; TPK 12</p>	<p>See the Life Science books to meet this standard.</p>	<p>Student Edition: (K) <i>Integrate History</i> 42 (M) <i>Integrate Life Science</i> 167</p>
<p>L.EC.06.22 Explain how two populations of organisms can be mutually beneficial and how that can lead to interdependency.</p>	<p>Student Edition: (E) 22</p> <p>Teacher Wraparound Edition: (E) A 22; MM 22</p>	<p>See the Life Science books to meet this standard.</p>	<p>See the Life Science books to meet this standard.</p>
<p>L.EC.06.23 Predict how changes in one population might affect other populations based upon their relationships in the food web.</p>	<p>Student Edition: (E) 51-53 <i>National Geographic</i> 18</p> <p>Teacher Wraparound Edition: (E) A 18; VL 52</p>	<p>See the Life Science books to meet this standard.</p>	<p>See the Life Science books to meet this standard.</p>

STANDARDS	PAGE REFERENCES		
	Life Science (E)	Earth Science (F, G)	Physical Science (K, M)
L.EC.M.3 Biotic and Abiotic Factors- The number of organisms and populations an ecosystem can support depends on the biotic (living) resources available and abiotic (nonliving) factors, such as quality of light and water, range of temperatures and soil composition.			
L.EC.06.31 Identify the living (biotic) and nonliving (abiotic) components of an ecosystem.	Student Edition: (E) 36-42 <i>Applying Math</i> 40 <i>Lab</i> 43 <i>Mini Lab</i> 38 <i>Science Online</i> 41 Teacher Wraparound Edition: (E) A 37; As 42; IL 39; LD 38; R 42; TPK 36; USW 37	See the Life Science books to meet this standard.	Student Edition: (K) <i>Integrate Earth Science</i> 29
L.EC.06.32 Identify the factors in an ecosystem that influence changes in population size.	Student Edition: (E) 12-19 <i>Applying Science</i> 15 <i>Design Your Own Lab</i> 26-27 <i>Mini Lab</i> 13, 17 <i>National Geographic</i> 18 <i>Science Online</i> 16 Teacher Wraparound Edition: (E) A 15, 18; CC 18; CU 19; D 14; DI 15, 16; IL 14; LD 14	See the Life Science books to meet this standard.	Student Edition: (K) <i>Integrate History</i> 42 (M) 142, 167 Teacher Wraparound Edition: (K) IH 42

STANDARDS	PAGE REFERENCES		
	Life Science (E)	Earth Science (F, G)	Physical Science (K, M)
L.EC.M.4 Environmental Impact of Organisms- All organisms (including humans) cause change in the environment where they live. Some of the changes are harmful to the organism or other organisms, whereas others are helpful.			
L.EC.06.41 Describe how human beings are part of the ecosystem of the Earth and that human activity can purposefully, or accidentally, alter the balance in ecosystems.	Student Edition: (E) 13, 126-136 <i>Lab</i> 144-145 <i>Mini Lab</i> 133, 135 <i>National Geographic</i> 132 Teacher Wraparound Edition: (E) A 28, 132; As 19; BI 124; D 14, 131; DI 132; QD 131; R 53; TFYI 132	Student Edition: (F) <i>Science and Society</i> 58 (G) 50-53 <i>The Nature of Science</i> 2-5 <i>Science Online</i> 51 Teacher Wraparound Edition: (F) V 72; VL 70 (G) SJ 105	Student Edition: (K) <i>Applying Science</i> 49 <i>National Geographic</i> 86 (M) 141, 167 <i>Integrate Life Science</i> 167 <i>Time Science and Society</i> 176 Teacher Wraparound Edition: (K) CC 47; NG 86 (M) CB 176
L.EC.06.42 Predict possible consequences of overpopulation of organisms, including humans, (for example: species extinction, resource depletion, climate change, pollution).	Student Edition: (E) 12-15, 19, 134, 141 <i>National Geographic</i> 18 Teacher Wraparound Edition: (E) A 18; MM 134; VPG 18	See the Life Science books to meet this standard.	See the Life Science books to meet this standard.

STANDARDS	PAGE REFERENCES		
	Life Science (E)	Earth Science (F, G)	Physical Science (K, M)
EARTH SCIENCE			
Solid Earth			
<i>K-7 Standard E.SE: Develop an understanding of the properties of earth materials and how those properties make materials useful. Understand gradual and rapid changes in earth materials and features of the surface of Earth. Understand magnetic properties of Earth.</i>			
E.SE.M.1 Soil- Soils consist of weathered rocks and decomposed organic materials from dead plants, animals, and bacteria. Soils are often found in layers with each having a different chemical composition and texture.			
E.SE.06.11 Explain how physical and chemical weathering lead to erosion and the formation of soils and sediments.	See the Earth Science books to meet this standard.	Student Edition: (G) 36-41, 42, 50-53, 64-68 <i>Science Online</i> 39 <i>National Geographic</i> 43 <i>Design Your Own Lab</i> 54-55 Teacher Wraparound Edition: (G) A 40; DIS 37; R 53; SCB 34E; SJ 37; TFYI 37; VL 38	See the Earth Science books to meet this standard.

STANDARDS	PAGE REFERENCES		
	Life Science (E)	Earth Science (F, G)	Physical Science (K, M)
E.SE.06.12 Explain how waves, wind, water, and glacier movement, shape and reshape the land surface of the Earth by eroding rock in some areas and depositing sediments in other areas.	See the Earth Science books to meet this standard.	Student Edition: (G) 64-68, 69-74, 76-81, 92-102, 112 <i>Launch Lab</i> 63, 91 <i>MiniLAB</i> 65 <i>Lab</i> 75, 114-115 <i>Science Online</i> 74 <i>Design Your Own Lab</i> 82-83 Teacher Wraparound Edition: (G) A 81; IL 66; IM 62F; LD 70; SJ 84	See the Earth Science books to meet this standard.
E.SE.06.13 Describe how soil is a mixture, made up of weather eroded rock and decomposed organic material.	Student Edition: (E) 38, 64-65, 109 <i>Lab</i> 43 <i>Mini Lab</i> 38 Teacher Wraparound Edition: (E) LD 38; QD 65	Student Edition: (G) 42-48 <i>Get Ready to Read</i> 36A-B <i>National Geographic</i> 43 <i>MiniLAB</i> 44 Teacher Wraparound Edition: (G) A 44; ACT 43; DI 43; DIS 45; V 43	The following references discuss biomass conversion and decomposition into energy. Student Edition: (M) <i>Integrate Life Science</i> 133
E.SE.06.14 Compare different soil samples based on particle size and texture.	Student Edition: (E) 38 <i>Mini Lab</i> 38 Teacher Wraparound Edition: (E) LD 38	Student Edition: (G) 46-47 <i>Get Ready to Read</i> 36B <i>Applying Math</i> 46 <i>Lab</i> 49	See the Earth Science books to meet this standard.

		Teacher Wraparound Edition: (G) A 49; DI 47; TFYI 46	
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STANDARDS	PAGE REFERENCES		
	Life Science (E)	Earth Science (F, G)	Physical Science (K, M)
E.SE.M.4 Rock Formation- Rocks and rock formations bear evidence of the minerals, materials, temperature/pressure conditions, and forces that created them.			
E.SE.06.41 Compare and contrast the formation of rock types (igneous, metamorphic, and sedimentary) and demonstrate the similarities and differences using the rock cycle model.	See the Earth Science books to meet this standard.	Student Edition: (F) 40-43, 45-48, 49-55 <i>Get Ready to Read</i> 36B <i>Lab</i> 44 Teacher Wraparound Edition: (F) A 37; ACT 47; DI 37; DIS 38, 51; QD 53; SCB 34E-F; SJ 51; UAA 46; V 38	Student Edition: (K) <i>Integrate Earth Science</i> 29
E.SE.M.5 Plate Tectonics- The lithospheric plates of the Earth constantly move, resulting in major geological events, such as earthquakes, volcanic eruptions, and mountain building.			
E.SE.06.51 Explain plate tectonic movement and how the lithospheric plates move centimeters each year.	See the Earth Science books to meet this standard.	Student Edition: (F) 98-101, 102-104, 106-116 <i>Lab</i> 105 <i>National Geographic</i> 109 <i>Integrate Physics</i> 114 <i>Applying Math</i> 121 Teacher Wraparound Edition: (F) A 115; MM 112, 113; QD 107; R 115; SCB 96E-F; TFYI 113, 114; VL 110	See the Earth Science books to meet this standard.

STANDARDS	PAGE REFERENCES		
	Life Science (E)	Earth Science (F, G)	Physical Science (K, M)
E.SE.06.52 Demonstrate how major geological events (earthquakes, volcanic eruptions, mountain building) result from these plate motions.	See the Earth Science books to meet this standard.	Student Edition: (F) 106-115, 126-129, 159-161 <i>Science Online</i> 108 <i>Use the Internet Lab</i> 116-117 <i>Integrate Earth Science</i> 118 Teacher Wraparound Edition: (F) A 117; ACT 109; AIL 116; CC 113; DI 114; LD 108; SCB 96F; TPK 106; V 109	See the Earth Science books to meet this standard.
E.SE.06.53 Describe layers of the Earth as a lithosphere (crust and upper mantle), convecting mantle, and dense metallic core.	See the Earth Science books to meet this standard.	Student Edition: (F) 106-107, 111, 123#23, 135-137 Teacher Wraparound Edition: (F) CFU 137; DI 136; UAA 136	Student Edition: (M) <i>Energy Resources</i> 139
E.SE.M.6 Magnetic Field of Earth- Earth as a whole has a magnetic field that is detectable at the surface with a compass.			
E.SE.06.61 Describe the Earth as a magnet and compare the magnetic properties of the Earth to that of a natural or man-made magnet.	See the Physical Science book (N) to meet this standard.	See the Physical Science book (N) to meet this standard.	See the Physical Science book (N) to meet this standard.

STANDARDS	PAGE REFERENCES		
	Life Science (E)	Earth Science (F, G)	Physical Science (K, M)
E.SE.06.62 Explain how a compass works using the magnetic field of the Earth, and how a compass is used for navigation on land and sea.	See the Physical Science book (N) to meet this standard.	See the Physical Science book (N) to meet this standard.	See the Physical Science book (N) to meet this standard.
Earth in Space and Time			
<i>K-7 Standard E.ST: Develop an understanding that the sun is the central and largest body in the solar system and that Earth and other objects in the sky move in a regular and predictable motion around the sun. Understand that those motions explain the day, year, moon phases, eclipses and the appearance of motion of objects across the sky. Understand that gravity is the force that keeps the planets in orbit around the sun and governs motion in the solar system. Develop an understanding that fossils and layers of Earth provide evidence of the history of Earth's life forms, changes over long periods of time, and theories regarding Earth's history and continental drift.</i>			
E.ST.M.3 Fossils- Fossils provide important evidence of how life and environmental conditions have changed in a given location.			
E.ST.06.31 Explain how rocks and fossils are used to understand the age and geological history of the earth (timelines and relative dating, rock layers).	See the Earth Science books to meet this standard.	Student Edition: (F) MiniLAB 100 (G) 124-131, 132-137, 139-143 Science Online 133 Applying Skills 137 Lab 138 MiniLAB 140, 164 Teacher Wraparound Edition: (F) DI 100 (G) CFU 137; DI 133; IL 136; IM 122F; QD 133; V 135; VL 130	Energy source origins are compared in the following references. Student Edition: (M) 140 Integrate Earth Science 140

STANDARDS	PAGE REFERENCES		
	Life Science (E)	Earth Science (F, G)	Physical Science (K, M)
E.ST.M.4 Geologic Time- Earth processes seen today (erosion, mountain building, and glacier movement) make possible the measurement of geologic time through methods such as observing rock sequences and using fossils to correlate the sequences at various locations.			
E.ST.06.41 Explain how Earth processes (erosion, mountain building, and glacier movement) are used for the measurement of geologic time through observing rock layers.	Student Edition: (E) 44-45, 79, 103, 107-108 <i>Identify</i> 45 <i>Mini Lab</i> 103 Teacher Wraparound Edition: (E) A 107; CA 45; IL 39; IM 45; QD 45, 107; SJ 45; TFYI 79; TPK 44	See the Life Science books to meet this standard.	See the Life Science books to meet this standard.
E.ST.06.42 Describe how fossils provide important evidence of how life and environmental conditions have changed.	See the Earth Science books to meet this standard.	Student Edition: (F) 99-100 <i>Applying Skills</i> 101 (G) 124-131, 149 #25, 159-161 <i>Integrate Life Science</i> 130 <i>Applying Science</i> 142 <i>National Geographic</i> 165 <i>Use the Internet Lab</i> 176-177 Teacher Wraparound Edition: (F) TFYI 100 (G) DI 131; IM 166; SJ 129	Energy source origins are compared in the following references. Student Edition: (M) <i>Integrate Earth Science</i> 140